



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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April 15, 1999

TO: File

THRU: Joe Helfrich, Permit Supervisor 

FROM: Paul Baker, Reclamation Biologist 

RE: Dugout Canyon Exploration, Canyon Fuel Company, Dugout Canyon Mine.
EXP-007-039-99A, Folder #2, Carbon County, Utah

SUMMARY:

Canyon Fuel is proposing to conduct coal exploration in Dugout Canyon and areas to the west. The entire area is critical deer summer range, and sites near potential deer fawning areas should not be disturbed until after July 15. Also, the applicant needs to clarify the revegetation plan and provide for mulching or raking the area after seeding.

TECHNICAL ANALYSIS:

ADMINISTRATIVE INFORMATION

Regulatory Reference: R645-200

Analysis:

Canyon Fuel Company is proposing to drill up to six exploratory holes and to conduct one seismic line survey within and to the west of Dugout Canyon. The Notice of Intention (NOI) includes the applicant's name, address, telephone number and representatives who will be present during drilling operations. Map 1 shows the locations of the proposed exploration activities, and Table 1 shows legal descriptions to the nearest quarter quarter section, collar elevations, and estimated coal and total depths.

The applicant desires to begin non-disturbing activities, such as flagging, as soon as road conditions allow. Ground-disturbing activities must begin by mid-July to avoid late season used conflicts, but the applicant would like to begin in the middle of June. It is hoped that the

Dugout Canyon Exploration
EXP/007/039-99A
April 15, 1999
Page 2

exploration work can be completed by the end of August, but if exploration begins July 15 and lasts nine weeks, it would not be done until September 16.

Specific exploration and reclamation methods are described in each section of the NOI. The applicant intends to remove less than 250 tons of coal through exploratory drilling.

The coal exploration regulations do not require information about cultural resources, but other laws do. Drill sites "I," "J," and "L" were surveyed in 1998, and no cultural resources were identified. The seismic study is to be conducted along an existing road, so it is unlikely this area would contain cultural resources. A survey will be conducted at sites "G," "H," and "N" and their access routes prior to ground-disturbing activity.

Findings:

Information provided in the NOI is considered adequate to meet the requirements of this section of the regulations.

OPERATIONAL STANDARDS

Regulatory Reference: R645-202-231, R645-202-232

Analysis:

There are eight listed or candidate threatened or endangered species that do or may occur in Carbon County. The exploration areas do not contain habitat for any of these except the bald eagle and peregrine falcon.

Bald eagles are not known to nest in the area but could potentially be there in the winter. Because of the timing of the proposed operations, it is unlikely there would be any effect on bald eagles.

Peregrine falcons are believed to nest in the Book Cliffs several miles from the proposed exploration area, but they have not been found in the immediate area.

According to information in the mining and reclamation plan, there are golden eagle and buteo nests within one-half mile of proposed drill site "G" and seismic line "A." In addition, it appears the exploration areas contain habitat suitable for tree-nesting raptors, especially red-tail hawks but possibly including accipiters, such as goshawks.

In the wildlife section, the NOI says it is likely exploration activities will commence after July 15, 1999, but other sections of the NOI indicate it could begin earlier. The wildlife section says that if exploration is to begin before July 15, the applicant will conduct a raptor survey within a one-half mile radius of affected drill pads and the seismic survey line and forward the results to the Division.

The commitments in the NOI with regard to raptors are acceptable. If exploration activities begin after July 15, there would be no concern about raptors. **If disturbance is to occur before July 15 and if nesting raptors are within the one-half mile buffer zone, the Division will require as a performance standard there be no disturbance until after July 15.**

According to information in the current mining and reclamation plan, the entire area contains critical deer summer range. Although the area is used throughout the summer, the most important time is during fawning which takes place primarily from May 1 through July 15. The most important areas for fawning are those that provide good cover, such as aspen, conifer, and pinyon/juniper areas.

Comparing Map 1 in the exploration NOI and Plate 3-1 in the mining and reclamation plan, it appears drill holes G, I, J, and N are in sage/grass vegetation communities, L is in a Douglas fir community, and H is in a Ponderosa pine community. The seismic line is mostly in sage/grass, but the southern end is in Ponderosa pine and sage/grass/juniper.

Neither a Division nor a Wildlife Resources biologist has visited the sites, but, based on available information, the sites most likely to contain nearby fawning areas are drill sites H, I, L, and N and a portion of the seismic line. This leaves sites G and J as being least likely to be near deer fawning areas. Although L is in a Douglas fir community, it is right next to the Dugout Canyon road, so exploration in this area should not be a concern.

Any of the sites could be disturbed after July 15, but only sites G, J, and L should be disturbed before July 15. The applicant needs to make this commitment or this should be included as a stipulation to approval of the NOI.

The applicant commits to conduct an on-site inspection with regulatory agencies of proposed drill sites and access routes prior to any construction or drilling to discuss site-specific concerns if requested. This on-site inspection is needed to determine whether there are any concerns not addressed in the NOI. For example, the NOI mentions a small intermittent stream and says it could be culverted or a rock bridge built if necessary. It would be best to see and discuss features like this. It would also be possible to look at the sites to determine whether they are near fawning areas.

Findings:

Information provided in the proposal is not considered adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-202-231, The entire exploration area is in critical deer summer range. It appears a portion of the seismic line and all of the drill sites except G and J are near potential deer fawning areas although site L is adjacent to the Dugout Canyon road. None of the sites other than G, J, and L should be disturbed between May 1 and July 15. The applicant needs to commit to not disturb these areas within this period.

Alternatively, the Division could stipulate that the sites other than G, J, and L not be disturbed until after July 15.

If exploration activities begin before July 15, the applicant commits to perform a raptor survey within one-half mile of these sites. If any active nests are found within these buffer zones, the applicant must delay drilling in the areas near the nests until after July 15. The Division will enforce this as a performance standard.

RECLAMATION STANDARDS

Regulatory Reference: R645-202-242

Analysis:

After exploration is complete, debris and equipment will be removed. When the mud pit is dry enough, it will be filled with subsoil and the site regraded. After this, straw bales or silt fence will be removed, topsoil will be spread, and the area will be seeded.

According to the NOI, seed will be crimped or worked into the soil by roughening the surface with a dozer or backhoe or by dragging the area. The applicant needs to modify this plan. It would be best to roughen the surface then seed soon after. The wording in the NOI makes it appear the seed could be buried much too deeply by the dozer or backhoe during the roughening process.

The NOI shows a seed mix consisting of five grasses, three non-grass forbs, and one

shrub. It contains three introduced species that are probably not essential for revegetation success, but since they are not overly aggressive species, the seed mix is acceptable. The species used should be capable of stabilizing the soil surface from erosion, and they are compatible with vegetation of the area.

The NOI says the seed mixture will be 95% pure live seed. While this is attainable, it is not a realistic or necessary commitment. The seed just needs to meet the requirements of the Utah Seed Act and be applied in the amounts specified in the NOI.

Straw or hay mulch may be used at the rate of 2000 pounds per acre and will be certified as free of noxious weeds. The applicant needs to give a definitive commitment whether mulch will be used. The areas need to either be raked to cover most of the seed, or the areas should be mulched. It is preferred the areas be mulched to protect the seed and to provide better erosion protection.

Findings:

Information provided in the proposal is not considered adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-202-242, The applicant needs to clarify and modify the surface preparation techniques. The NOI indicates seed could be crimped or worked into the soil by roughening it with a backhoe or dozer, and this could bury the seed too deeply. The surface should be roughened first with seeding following shortly after.

R645-202-242, The NOI says straw or hay mulch may be used, but the applicant needs to give a definitive commitment. Seed needs to be protected either by raking the surface after seeding or by applying mulch.

RECOMMENDATIONS:

The NOI should not be approved until the deficiencies outlined in this memorandum have been adequately addressed. Alternatively, the Division could stipulate that the applicant adhere to the conditions discussed in this memorandum.